Having thus described the preferred embodiment, the invention is now claimed to be:

1. An x-ray tube **(16)** comprising:

an envelope **(42)** which defines an evacuated chamber;

a source **(54)** of electrons;

an anode **(40)** mounted within the chamber for rotation about an axis of rotation **(R)**, the anode defining a sloped peripheral region **(50)** on which a target area **(56)** is defined, which target area is struck by electrons **(52)** emitted by the electron source and emits x-rays **(46)**, the sloped peripheral region including a first annular portion **(80)**, sloped at first angle **(α)** relative to a plane perpendicular to the axis of rotation, and a second annular portion **(82,120)**, adjacent the first portion, sloped at a second angle **(β)**, relative to the plane, the second angle being different from the first angle, the target area being defined partially on the first annular portion and partially on the second annular portion.

2. The x-ray tube of claim 1, wherein the first annular portion **(80)** is closer to a periphery of the anode **(40)** than the second portion **(82,120)**.

3. The x-ray tube of claim 1, wherein the first angle **(α)** and the second angle **(β)** differ by at least 1°.

4. The x-ray tube of claim 3, wherein the first and second angles **(α, β)** differ by at least 2°.

5. The x-ray tube of claim 1, wherein the first angle **(α)** is less than about 8°.

6. The x-ray tube of claim 1, wherein the first angle **(α)** is from about 6° to about 8°.

7. The x-ray tube of claim 5, wherein the first angle (α) is about 7°.

8. The x-ray tube of claim 6, wherein the second angle (β) is at least 8°.

9. The x-ray tube of claim 8, wherein the second angle (β) is about 10°.

10. The x-ray tube of claim 1, further including:
an annular transition portion **(110)** intermediate the first and second portions, the transition portion defining a smooth, curved transition between the first portion **(80)** and the second portion **(82)**.

11. The x-ray tube of claim 10, wherein the transition portion **(110)** curves gradually from the first portion **(80)** to the second portion **(82)**, the transition portion sloped at the first angle **(α)** adjacent the first portion and sloped at the second angle **(β)** adjacent the second portion.

12. The x-ray tube of claim 1, wherein the second portion **(120)** increases in slope with distance from the first portion **(80)**.

13. The x-ray tube of claim 1, wherein the first angle **(α)** is smaller than the second angle **(β)**, and the electron source **(54)** is configured to deliver substantially the same specific load to the portion of the target area **(56)** on the first portion **(80)** than to the portion of the target area on the second portion **(82)**.

14. The x-ray tube of claim 1, wherein the source of electrons includes a filament **(54)** having a greater width **(d_1)** in a region **(90)** of the filament which emits electrons

that strike the portion of the target area **(56)** on the first annular portion **(80)** and a smaller width **(d_2)** in a region **(92)** which emits electrons which strike the portion of the target area on the second annular portion **(82)**.

15. The x-ray tube of claim 15, wherein the width **(d)** of the filament **(54)** varies such that the width is inversely proportional to a tangent of an angle of a slope of a region of the target area that is struck by the electrons from the region of the filament.

16. A computed tomography (CT) scanner **(10)** including the x-ray tube **(16)** of **claim 1.**

17. The CT scanner of claim 16, wherein the CT scanner includes at least one x-ray detector **(20)** and a reconstruction processor **(32)**, the reconstruction processor being programmed to account for a higher x-ray flux from the first annular portion **(80)** than from the second annular portion **(82,120)**.

18. A method for generating a beam of x-rays, comprising:

accelerating and focusing a beam **(52)** of electrons; and

striking a target area **(56)** on a sloping peripheral region **(50)** of an anode **(40)** that rotates about an axis of rotation **(R)**, the peripheral region including a first annular portion **(80)** sloped at first angle **(α)** relative to a plane perpendicular to the axis of rotation, and a second annular portion **(82,120)**, radially spaced from the first annular portion and sloped at a second angle **(β)** relative to the plane, the second angle being different from the first angle, the target area being defined partially on the first annular portion and partially on the second annular portion.

19. The method of claim 18, further including:

generating electrons such that a portion of the election beam **(52)** which strikes the target area **(56)** on the first annular portion **(80)** has a greater electron current density than a portion of the election beam which strikes the part of the target on the second annular portion **(82,120)**.

20. The method of claim 19, wherein the angle **(α)** at which the first annular portion **(80)** is sloped is smaller than the angle **(β)** at which the second annular portion is sloped.

21. The method of claim 18, further including:

directing the x-rays **(46)** towards a subject;

detecting x-rays passing through the subject with a detector **(20)**; and

reconstructing an image of the subject, including accounting for a larger flux of x-rays from the part of the target area **(56)** on the first annular portion **(80)** than from the part of the target area on the second annular portion **(82,120)**.